

Abstract of the Disclosure

A method of making a pultruded part having a uniform cross-section using a novel reinforcing mat. The method comprises orienting a plurality of longitudinal rovings along a longitudinal axis of a pultrusion die; providing a reinforcing structure comprising a permeable transport web of staple fibers attached to a plurality of first reinforcing fibers oriented so that the portion of the first reinforcing fibers oriented in a direction transverse to the longitudinal axis comprises at least 40% of a volume of materials comprising the reinforcing structure; shaping the reinforcing structure to generally conform with a profile of the pultrusion die; combining a resin matrix with the longitudinal rovings and the reinforcing structure in the pultrusion die so that the longitudinal rovings and the reinforcing structure are substantially surrounded by the resin matrix; at least partially curing the resin matrix in the pultrusion die; and pulling the pultruded part from the pultrusion die.

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